

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 7625

Petition of Vermont Electric Cooperative, Inc.,     )  
for a certificate of public good pursuant to     )  
30 V.S.A. § 248(j) authorizing the replacement     )  
of the existing transformer and the installation of     )  
an oil-spill-containment system at the East     )  
Berkshire Substation in Berkshire, Vermont     )

Order entered: 10/22/2010

**I. INTRODUCTION**

On June 7, 2010, Vermont Electric Cooperative, Inc. ("VEC") filed a petition with the Vermont Public Service Board ("Board") requesting a certificate of public good ("CPG"), pursuant to 30 V.S.A. § 248(j), to replace the existing transformer and install an oil-spill-containment system at the East Berkshire Substation #30 ("Berkshire Substation") located off Route 105, north of the intersection with Montgomery Road in Berkshire, Vermont (the "Project").

On June 24, 2010, the Board requested additional information concerning the petition. On July 21, 2010, VEC filed a letter and additional prefiled testimony and exhibits in response to that request.<sup>1</sup>

Notice of the filing in this Docket was sent on September 1, 2010, to all parties specified in 30 V.S.A. § 248(a)(4)(C) and all other interested persons. The notice stated that any party wishing to submit comments as to whether the petition raises a significant issue with respect to the substantive criteria of 30 V.S.A. § 248 must file their comments with the Board on or before September 29, 2010.

The Vermont Department of Public Service ("Department") reviewed the petition and filed comments with the Board on September 29, 2010, stating that the project does not raise any

---

1. Letter from Joslyn L. Wilschek, Esq., to Susan Hudson, Clerk of the Board, filed July 21, 2010.

significant issues with respect to the substantive criteria of 30 V.S.A. § 248, but did recommend that the Board include conditions regarding the Project's signage and the height of the fenced enclosure. The Department does not oppose the issuance of the CPG with the inclusion of the conditions. The Department's letter also stated that VEC's counsel authorized the Department to represent that VEC does not object to these conditions.<sup>2</sup>

On September 30, 2010, the Department filed a determination that the proposed project is consistent with the *Vermont Electric Plan*, in accordance with 30 V.S.A. § 202(f).

The Board has reviewed the petition and accompanying documents and concludes that, pursuant to Section 248(j), a CPG should be issued without the notice and hearings otherwise required by 30 V.S.A. § 248.

## **II. FINDINGS**

Based upon the petition and accompanying documents, the Board hereby makes the following findings in this matter.

1. VEC is a duly organized electric cooperative with its principal place of business located at 140 Wescom Road, Johnson, Vermont. Petition at 1.
2. VEC owns and operates a substation located off Route 105, approximately two-thirds of a mile north of the intersection with Montgomery Road, in Berkshire, Vermont, which provides electrical service to approximately 879 member-customers in the Towns of Berkshire, Montgomery, Richford, and Enosburg. During maintenance or outages at VEC's Richford Substation, the Berkshire Substation also provides service to approximately 1,215 additional member-customers in Richford. The Berkshire Substation includes one three-phase transformer, which has a base rating of 2,500 kVA without fan cooling and 3,125 kVA with fan cooling. Denis pf. at 3-4; exh. DRD-2.
3. The existing substation does not have an oil-spill-containment system and one of its circuit reclosers is out of compliance with the National Electric Safety Code ("NESC") because it is located approximately one foot too close to the substation fence. The existing transformer,

---

2. Letter from Laura Scanlan Beliveau, Esq., to Susan Hudson, Clerk of the Board, filed September 29, 2010.

which was manufactured circa 1970, is approaching the end of its useful life and has lost the capability to carry the Richford Substation's load in an emergency, for which no other substation can provide back-up. Denis pf. at 4-5 and 9-10; Denis supp. pf. at 2-3; exhs. DRD-5-6.

4. The Project will occur completely within the existing substation fence and involves replacing the existing transformer, relocating the existing out-of-compliance circuit recloser, and installing an oil-spill-containment system. VEC will replace the existing transformer, rated at 2,500/3,125kVA, with a larger transformer, rated at 7,500/9,375 kVA. At the same time VEC replaces the transformer, VEC will also shift the location of the existing out-of-compliance circuit recloser to comply with the latest edition of the NESC. VEC will also install an oil-spill-containment system consisting of an above-ground concrete pedestal and basin. The new oil-spill-containment system will be constructed to meet the Environmental Protection Agency's ("EPA") utility spill prevention, control, and countermeasures plan ("SPCC") standards.<sup>3</sup> Denis pf. at 6-7; Denis supp. pf. at 3-4; exh. DRD-6.

5. The Project will not require customer service interruptions. VEC plans to complete the Project during a period of low load demand so that load can be served by the neighboring Richford Substation. Alternatively, VEC will contract the use of a mobile substation. Denis pf. at 7.

6. The estimated cost for the Project is \$329,000. Denis pf. at 6; exh. DRD-3.

### **Orderly Development of the Region**

[30 V.S.A. § 248(b)(1)]

7. The Project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. This finding is supported by findings 2-5, above, and findings 8-10, below.

---

3. Although VEC described in general terms the oil-spill-containment system, it did not provide design plans for the system. Therefore, we will require VEC to file such plans as a condition of the CPG for the Project.

8. The Northwest Regional Planning Commission ("NWRPC"), the Town of Berkshire Planning Commission, and the Berkshire Selectboard issued letters supporting the Project and waiving the 45-day advance notice requirement, as provided by 30 V.S.A. § 248(f). Denis pf. at 9; exh. DRD-5.

9. The Project is consistent with the Berkshire's Municipal Plan and the 2007 Northwest Regional Plan and will enhance the orderly development of the region. Denis pf. at 8; exh. DRD-5; *see also* findings 11-15.

10. The Project will occur within the existing substation fence and will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment or public health and safety. Denis pf. at 7; Denis supp. pf. at 4; *see also* findings 18-38.

#### **Need For Present and Future Demand for Service**

[30 V.S.A. § 248(b)(2)]

11. The Project is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load management measures. Denis pf. at 9. This finding is further supported by findings 2-5, above, and findings 12-16, below.

12. The most recent summer and winter peak loads at the Berkshire Substation occurred in 2008 and were 2 MW and 2.18 MW respectively (excluding Berkshire Cow Power generation of 500 kW and occurring under normal operating conditions, when the substation was not carrying any load normally served by neighboring substations). Over the past three years, the Berkshire Substation has averaged a decline in load of five percent, consistent with the area's population change, and its future load growth is expected to remain flat annually. Denis pf. at 4-5.

13. The Berkshire Substation is the only substation that provides back-up support for the Richford Substation and it has lost the capability to carry the Richford Substation's load in an emergency because the existing transformer at the Berkshire substation lacks adequate capacity. In addition, VEC intends to shift approximately 1 MW of load from the Sheldon Substation to the Richford Substation. The most recent summer and winter peak loads at the Richford Substation occurred in 2009 and were 3.62 MW and 4.02 MW respectively. Denis pf. at 4-5.

14. VEC has replaced existing transformers at its Burton Hill and Richford substations with 7,500/9,375 kVA transformers. VEC has also identified the need to replace a number of other transformers on its 46 kV system, including the Berkshire Substation. By replacing these transformers with 7,500/9,375 kVA transformers, VEC will minimize its need for spare transformers and will help meet the long-term energy needs of VEC's member-consumers by providing adequate back-up for the Richford substation. Denis pf. at 5-6 and 9-10.

15. The transformer at the Berkshire substation is thirty-nine years old, and testing of the transformer oil indicates early signs of transformer insulation-system degradation. Denis pf. at 9-10.

16. Energy conservation programs and measures, energy efficiency, and load management will not eliminate the need for the Project. Denis pf. at 9.

#### **System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

17. The Project will not adversely affect system stability and reliability. Denis pf. at 11. This finding is further supported by finding 5, above.

#### **Economic Benefit to the State**

[30 V.S.A. § 248(b)(4)]

18. The Project will result in an economic benefit to the state and its residents by restoring the capability of the Berkshire Substation to carry load from the Richford Substation during emergencies and maintenance activities, thereby reducing the number and duration of outages for the member-customers served by the Sheldon and Richford substations. Denis pf. at 4-5 and 11. This finding is further supported by findings 2-4 and 13-15, above.

**Aesthetics, Historic Sites, Air and**  
**Water Purity, the Natural Environment and Public**  
**Health and Safety**

[30 V.S.A. § 248(b)(5)]

19. The Project, as proposed, will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and the public health and safety. This finding is supported by findings 20-43, below, which are based on the criteria specified in 10 V.S.A. §§ 1424a(d) and 6086(a)(1) through (8), 8(A) and (9)(K).

**Outstanding Resource Waters**

[10 V.S.A. § 1424a(d)]

20. The Project is not located on or near any Outstanding Resource Waters. Denis pf. at 16.

**Water and Air Pollution**

[10 V.S.A. § 6086(a)(1)]

21. The Project, as proposed, will not result in undue water or air pollution. This finding is supported by finding 22, below.

22. The Project does not involve any activities that would create undue air pollution or water pollution. The Project's operation will not produce any air emissions, excessive dust, odors, smoke, or noise during construction. The Project will occur entirely within the existing substation fence and will not involve earth disturbances. Denis pf. at 7 and 12; Denis supp. pf. at 4; *see also* findings 23-33, below.

**Headwaters**

[10 V.S.A. § 6086(a)(1)(A)]

23. The Project will occur entirely within the existing substation fence and will therefore not impact this criterion. Denis pf. at 12.

**Waste Disposal**

[10 V.S.A. § 6086(a)(1)(B)]

24. The Project will meet any applicable health and environmental conservation regulations regarding the disposal of wastes, and will not involve the injection of waste materials or any harmful or toxic substances into ground water or wells. This finding is supported by findings 25-26, below.

25. The existing transformer will be returned to VEC's inventory and used as an "emergency spare." Denis pf. at 10 and 12.

26. Any Project-related wastes will be disposed of in a State-approved landfill. Denis pf. at 12.

**Water Conservation**

[10 V.S.A. § 6086(a)(1)(C)]

27. The Project will not utilize water. Denis pf. at 13-14.

**Floodways**

[10 V.S.A. § 6086(a)(1)(D)]

28. The Project will not be located within a floodway. Denis pf. at 13.

**Streams**

[10 V.S.A. § 6086(a)(1)(E)]

29. The Project will not be located on or adjacent to a stream. Denis pf. at 13.

**Shorelines**

[10 V.S.A. § 6086(a)(1)(F)]

30. The Project will not be located on any shorelines. Denis pf. at 13.

**Wetlands**

[10 V.S.A. § 6086(a)(1)(G)]

31. The Project will occur entirely within the existing substation fence and will therefore not impact this criterion. Denis pf. at 14.

**Sufficiency of Water and Burden on Existing Water Supply**

[10 V.S.A. § 6086(a)(2) and (3)]

32. The Project will not utilize water. Denis pf. at 13-14.

**Soil Erosion**

[10 V.S.A. § 6086(a)(4)]

33. The Project-related changes will occur entirely within the existing substation fence and will not cause any soil disturbances. Denis pf. at 7 and 14; Denis supp. pf. at 4.

**Transportation Systems**

[10 V.S.A. § 6086(a)(5)]

34. The Project will not impact any means of transportation. Denis pf. at 15.

**Educational Services**

[10 V.S.A. § 6086(a)(6)]

35. The Project will not impact any educational services. Denis pf. at 15.

**Municipal Services**

[10 V.S.A. § 6086(a)(7)]

36. The Project will not require any municipal or government services. Denis pf. at 15.



**Aesthetics, Historic Sites or Rare  
and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

37. The Project will not have an undue adverse effect on the scenic or natural beauty, aesthetics, historic sites or rare and irreplaceable natural areas.<sup>4</sup> This finding is supported by findings 38-40, below.

38. The Project will not change the aesthetic impact of the existing substation site. The Project is located at an existing substation and all changes will occur entirely within the existing substation fence. Denis pf. at 7 and 12; Denis supp. pf. at 4.

39. The new transformer will occupy the same location as the existing transformer. The new transformer will also not be significantly different in appearance than the existing transformer. Exhs. VEC-DRD-2, 4, and 6.

40. There are no known historic sites or archeologically sensitive areas in the vicinity of the Project. There will not be any impact to below-ground historic sites as all areas of disturbance were previously disturbed with the installation of the existing transformer foundation and ground grid. Denis pf. at 11.

**Necessary Wildlife Habitat and  
Endangered Species**

[10 V.S.A. § 6086(a)(8)(A)]

41. The Project will occur entirely within the existing substation fence and will therefore not impact this criterion. Denis pf. at 7; Denis supp. pf. at 4.

---

4. Petitioner failed to provide testimony specifically addressing whether the Project would impact rare and irreplaceable natural areas. However, all Project-related changes will occur entirely within the existing substation fence. Denis pf. at 7; Denis supp. pf. at 4. Also, no party filed comments raising any concerns regarding rare and irreplaceable natural areas. Therefore, we conclude that the Project will not adversely impact any rare and irreplaceable natural areas.

**Development Affecting Public Investments**

[10 V.S.A. § 6086(a)(9)(K)]

42. The Project will not unnecessarily or unreasonably endanger the public or quasi-public investments in any governmental public utility facilities, services, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to such facilities, services, or lands. Denis pf. at 15-16. This finding is further supported by finding 43, below.

43. The only public investment near the Project is Vermont Route 105, which VEC currently utilizes, and will continue to utilize, for access to the Berkshire Substation. The Project will not impact the public's use of this road. Denis pf. at 16.

**Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

44. The Project will not have any adverse effects on the health, safety, or welfare of the public and will not unnecessarily or unreasonably endanger the public or adjoining landowners. Denis pf. at 16. This finding is further supported by findings 45-48, below.

45. The Project will install an oil-spill-containment system at the Berkshire Substation in accordance with EPA's SPCC standards. *See* finding 4.

46. The Project-related changes will be performed in accordance with the NESC. One of the existing circuit reclosers at the Berkshire Substation is out of compliance with the current NESC standards and the Project will relocate the out-of-compliance recloser to bring the facility into compliance. Denis pf. at 16; *see also* findings 3-4 and exhs. DRD-5-6.

47. VEC will install American National Standards Institute-style signs, as required by the NESC. Letter from Laura Scanlan Beliveau, Esq., to Susan Hudson, Clerk of the Board, filed September 29, 2010.

48. VEC will ensure that the substation fences are at least seven feet high in total, as required by the NESC. Letter from Laura Scanlan Beliveau, Esq., to Susan Hudson, Clerk of the Board, filed September 29, 2010.

**Least-Cost Integrated Resource Plan**

[30 V.S.A. § 248(b)(6)]

49. The Project is consistent with VEC's Least-Cost Integrated Resource Plan ("IRP"). The Board approved the Transmission and Distribution portion of VEC's IRP ("T&D IRP") on July 31, 2009, and the T&D IRP specifically highlighted the need to install a larger capacity transformer at the Berkshire Substation. Denis pf. at 16; *see also Investigation into VEC's 2008 IRP*, Docket 7449, Order of 7/31/09.

**Compliance With Electric Energy Plan**

[30 V.S.A. § 248(b)(7)]

50. The Project is consistent with the *Vermont Electric Plan*. This finding is supported by findings 51 and 52, below.

51. The Project will increase safety and reliability by replacing an older transformer with a new transformer that is large enough to provide back-up support for the neighboring Richford Substation. Denis pf. at 17.

52. On September 30, 2010, the Department filed a letter stating that the Project is consistent with the *Vermont Electric Plan*, pursuant to 30 V.S.A. § 202(f). Letter from Laura Scanlan Beliveau, Esq., to Susan Hudson, Clerk of the Board, filed September 30, 2010.

**Outstanding Resource Waters**

[30 V.S.A. § 248(b)(8)]

53. The Project is not located on or near any Outstanding Resource Waters. Denis pf. at 16.

**Existing Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

54. The Project will not have adverse impacts on existing or planned transmission facilities or customers. Denis pf. at 17.

### **III. CONCLUSION**

Based upon all of the above evidence, the proposed project will be of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; the public interest is satisfied by the procedures authorized in 30 V.S.A. § 248(j); and the proposed project will promote the general good of the State.

### **IV. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The proposed replacement and upgrade of the existing transformer and the installation of an above-ground, concrete oil-spill-containment system at the Berkshire Substation in Berkshire, Vermont, in accordance with the evidence and plans submitted in this proceeding, will promote the general good of the State of Vermont in accordance with 30 V.S.A. § 248, and a certificate of public good to that effect shall be issued in this matter.
2. The Project shall be constructed in accordance with the evidence and plans submitted in these proceedings. Any material deviation from these plans must be approved by the Board.
3. Prior to proceeding with construction, Vermont Electric Cooperative, Inc. ("VEC") shall obtain all necessary permits and approvals. Construction, operation, and maintenance of the proposed Project shall be in accordance with such permits and approvals, and with all other applicable regulations, including those of the Vermont Agency of Natural Resources and the U.S. Army Corps of Engineers.
4. Prior to proceeding with construction of the oil-spill-containment system, VEC shall file, for Board approval, a final design plan for the oil-spill-containment system. Parties shall have one week, from the date of this filing with the Board, to comment on the plan.
5. VEC shall comply with the National Electric Safety Code ("NESC"). In compliance with the NESC requirements, VEC shall relocate the out-of-compliance circuit recloser, install American National Standards Institute-style signs, and ensure that the substation fences are a minimum of seven feet high.

Dated at Montpelier, Vermont, this 22<sup>nd</sup> day of October, 2010.

<u>s/ James Volz</u>	)	
	)	PUBLIC SERVICE
	)	
<u>s/ David C. Coen</u>	)	BOARD
	)	
	)	OF VERMONT
<u>s/ John D. Burke</u>	)	

OFFICE OF THE CLERK

FILED:      October 22, 2010

ATTEST: s/ Judith C. Whitney  
Deputy Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*